Exploring Aeronautics			
2001 Science and Technology/Engineering			
Curriculum Frameworks			
Massachusetts Science and Technology/Engineering			
Grades 3-5			
Activity/Lesson	**State**	**Standards**	
Wings(177-208)	MA	SCT.3-5.4.2.3	Identify relevant design features (e.g., size, shape, weight) for building a prototype of a solution to a given problem.
Tools of Aeronautics(257-326)	MA	SCT.3-5.4.2.3	Identify relevant design features (e.g., size, shape, weight) for building a prototype of a solution to a given problem.
The Tools of Aeronautics	MA	SCT.3-5.4.2.3	Identify relevant design features (e.g., size, shape, weight) for building a prototype of a solution to a given problem.
Science of Flight	MA	SCT.3-5.3.1	Differentiate between properties of objects (e.g., size, shape, weight) and properties of materials (e.g., color, texture, hardness).
Science of Flight	MA	SCT.3-5.4.1.1	Identify materials used to accomplish a design task based on a specific property, i.e., weight, strength, hardness, and flexibility.
Science of Flight	MA	SCT.3-5.4.2.3	Identify relevant design features (e.g., size, shape, weight) for building a prototype of a solution to a given problem.
Scientific Method(124-144)	MA	SCT.3-5.4.2.3	Identify relevant design features (e.g., size, shape, weight) for building a prototype of a solution to a given problem.
Exploring Aeronautics			
2001 Science and Technology/Engineering			
Curriculum Frameworks			
Massachusetts Science and Technology/Engineering			
Grades 6-8			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	MA	SCT.6-8.4.6.4	Identify and explain lift, drag, friction, thrust, and gravity in a vehicle or device, e.g., cars, boats, airplanes, rockets.
Wings(177-208)	MA	SCT.6-8.4.2.4	Identify appropriate materials, tools, and machines needed to construct a prototype of a given engineering design.
Airplane Control(209-256)	MA	SCT.6-8.4.6.4	Identify and explain lift, drag, friction, thrust, and gravity in a vehicle or device, e.g., cars, boats, airplanes, rockets.
Tools of Aeronautics(257-326)	MA	SCT.6-8.4.2.3	Describe and explain the purpose of a given prototype.
Tools of Aeronautics(257-326)	MA	SCT.6-8.4.2.4	Identify appropriate materials, tools, and machines needed to construct a prototype of a given engineering design.
Tools of Aeronautics(257-326)	MA	SCT.6-8.4.2.5	Explain how such design features as size, shape, weight, function, and cost limitations would affect the construction of a given prototype.

Tools of Aeronautics(257-326)	MA	SCT.6-8.4.3.2	Identify and explain the appropriate tools, machines, and electronic devices (e.g., drawing tools, computer-aided design, and cameras) used to produce and/or reproduce design solutions (e.g., engineering drawings, prototypes, and reports).
How an Airplane Flies	MA	SCT.6-8.4.6.4	Identify and explain lift, drag, friction, thrust, and gravity in a vehicle or device, e.g., cars, boats, airplanes, rockets.
The Tools of Aeronautics	MA	SCT.6-8.4.2.3	Describe and explain the purpose of a given prototype.
The Tools of Aeronautics	MA	SCT.6-8.4.2.4	Identify appropriate materials, tools, and machines needed to construct a prototype of a given engineering design.
The Tools of Aeronautics	MA	SCT.6-8.4.2.5	Explain how such design features as size, shape, weight, function, and cost limitations would affect the construction of a given prototype.
The Tools of Aeronautics	MA	SCT.6-8.4.3.2	Identify and explain the appropriate tools, machines, and electronic devices (e.g., drawing tools, computer-aided design, and cameras) used to produce and/or reproduce design solutions (e.g., engineering drawings, prototypes, and reports).
Science of Flight	MA	SCT.6-8.4.2.3	Describe and explain the purpose of a given prototype.
Science of Flight	MA	SCT.6-8.4.2.4	Identify appropriate materials, tools, and machines needed to construct a prototype of a given engineering design.
Science of Flight	MA	SCT.6-8.4.2.5	Explain how such design features as size, shape, weight, function, and cost limitations would affect the construction of a given prototype.
Science of Flight	MA	SCT.6-8.4.3.2	Identify and explain the appropriate tools, machines, and electronic devices (e.g., drawing tools, computer-aided design, and cameras) used to produce and/or reproduce design solutions (e.g., engineering drawings, prototypes, and reports).
Science of Flight	MA	SCT.6-8.4.6.4	Identify and explain lift, drag, friction, thrust, and gravity in a vehicle or device, e.g., cars, boats, airplanes, rockets.